



Instrumentcenter for Dansk Astrofysik (IDA)

Århus 29/3 2005



Background

Recommendation by Astronomisk Udvalg (2003)

- **Creation of national center to “consolidate the scientific returns of the Danish national investments in ESO, ESA, and NOT by creating a national center for ground- and space-based astrophysics”**
- **The center should play a key role in national strategic planning, coordination, communication, and research training with stronger emphasis on direct science output**

Successor to IJAF, key differences

- **Ground and space**
- **Large international facilities**
- **Research training**

”Instrument center” funded by SNF (now FNU)

- **15 MDKK 2004–2007**
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Stated IDA goals

- 1. Ensure critical mass and cost-effectiveness in a few high-priority projects**
- 2. Train a new generation of observational astrophysicists**
- 3. Focus Danish efforts in instrumentation on productive international projects**
- 4. Establish a focused national communication and outreach program.**

Due to the decision of SNF not to fund the outreach part goal #4 can only be partly realized.



IDA means

Co-finance PhD students

Fund research assistants for typically 1/2 year to analyse data from high-quality Danish projects utilizing large-scale facilities

Support research with the NOT and the Danish 1.5m telescope at La Silla by facilitating cost-effective approaches

Workshops and meetings

Focus instrumentation on participation in international projects and coordination with space projects. Partial funding of two technicians, gradually being ramped down.



IDA philosophy

The philosophy of IDA reflects the change in how observational astrophysics is done over the last decade, namely towards using large multi-wavelength facilities on the ground and in space, often through international collaboration

IDA will aim to give priority to projects within the areas prioritized by Astronomisk Udvalg (cosmology and galaxy formation, star and planet formation, extreme astrophysics)

IDA will focus on direct science output. Ensure timely publication of results (astro-ph!) and optimum scientific returns of the national investments in large astronomical facilities, including archival research. Emphasis on joint observational and theoretical projects and on multi-wavelength approaches

IDA will use (and help DK astronomers exploit!) co-financing schemes extensively

IDA employs a scientific administrator to ensure that IDA is running effectively on a daily basis, to ensure that IDA is firmly anchored in the Danish astrophysical community, playing a key role in coordinating and executing national strategies

Daily running of IDA is intended to be informal with the purpose of minimizing administration (for IDA and DK astronomers). We generally strive to make quick decisions...



Setup

Scientific leader: Jens Hjorth

Scientific administrator: Kristian Pedersen

Secretary: Marianne Bendtsen

Cols, advisors, local representatives:

- Bjarne Thomsen (IFA)
- Jens Viggo Clausen (NBI)
- Niels Lund (DRC)

All applications to IDA evaluated by independent committee of DK scientists

Comprehensive website: www.astrofysik.dk (or www.astro.ku.dk/ida)

Newsletters



Instrumentation

IDA partially funds 2 technicians at NBI

Project: CCD controller development

Progress is being closely monitored by IDA

Funding being ramped down

- 1.5 man-years/year in 2003
 - 0.44 man-years/year in 2007
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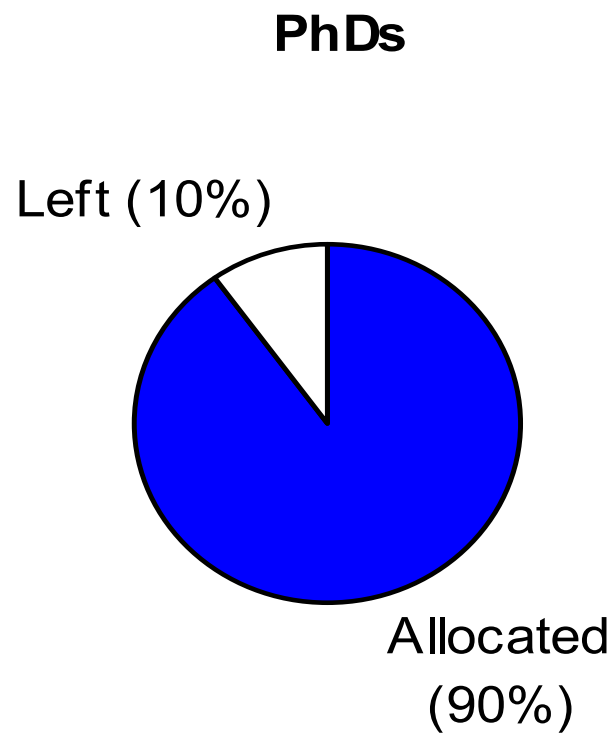


Danish 1.5m telescope

Period	PI	Program	Total nights	Moon	ToO/DDT
Jan 1 - Jan 4	Pietrzynski	Cepheids	3	Grey	<10%
Jan 4 - Jan 28	Kjeldsen	Stars	25	Grey, dark, bright	<10%
Jan 28 - Jan 31	Pietrzynski	Cepheids	3	Grey	<10%
Apr 1 - Apr 25	Hjorth	GRB	24	Grey, dark, grey, bright	<25%
Apr 25 - Apr 29	Catelan	Sagittarius globulars	4	Bright, grey	<10%
Apr 29 - May 9	Nordström	Stars	10	Grey, dark	<25%
May 9 - May 12	Galaz	Low SB galaxies	3	Dark	<10%
May 12 - May 15	Catelan	Sagittarius globulars	3	Grey	<10%
May 15 - May 28	Jørgensen/Hjorth	PLANET/GRB	13	Grey, bright, grey	<25%
Jun 26 - Jul 26	Jørgensen/Hjorth	PLANET/GRB	30	Grey, dark, grey, bright	<25%
Aug 24 - Sep 15	Kjeldsen/Jørgensen	Stars/PLANET	22	Grey, dark, grey	<25%
Sep 16 - Sep 23	Kjeldsen	Stars	7	Bright	<25%
Oct 23 - Nov 21	Hjorth	GRB	30	Grey, dark, grey, bright	<25%
Dec 21 - Jan 15	Kjeldsen	Stars	25	Grey, dark, grey, bright	<25%
Jan 15 - Jan 20	Nordström	Stars	5	Bright, grey	<25%
Feb 19 - Mar 20	Hjorth	GRB	29	Grey, dark, grey, bright	<25%
Total			236		



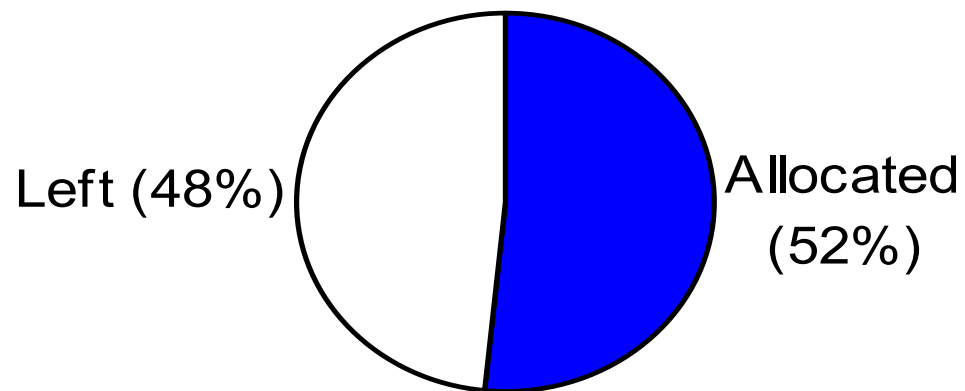
IDA Year 1: PhD students





IDA Year 1: Research assistants

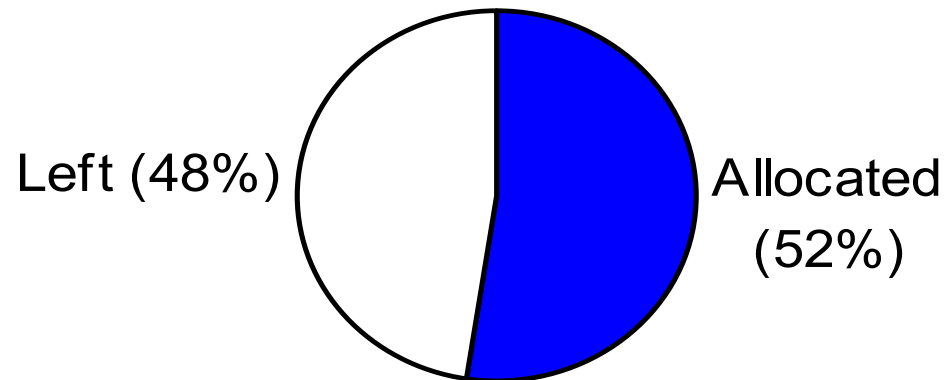
Research assistants





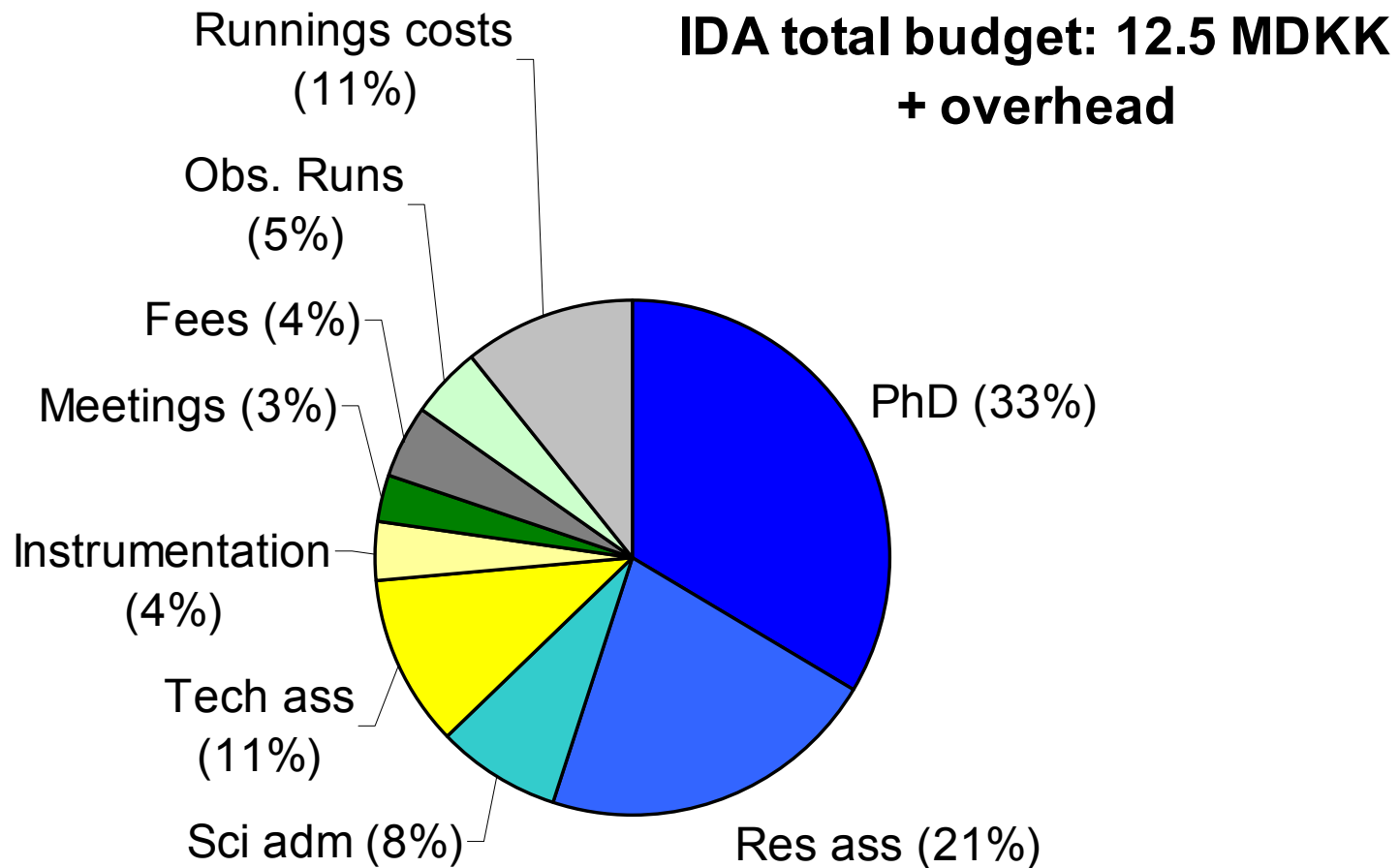
IDA Year 1: Workshops and meetings

Meetings





IDA economy





Challenges and issues

DK1.5m

Workshops

Use big telescopes!

Are research assistantships useful?

An IDA visitor program?

IDA run by same people who will be in charge of DNRF research center



IDA and Aarhus

Use Bjarne as your local representative!

Ideas for workshops (IDA arranged or IDA supported)?

DK1.5m?

**Future plans in Aarhus for exploiting ESO and ESA observatories
(ensuring adequate return on investment – IDA's raison d'être)?**

IDA must formally hire research assistants as employees at NBI

**Send any info of relevance to ida@astro.ku.dk. For example we will be
happy to post (job) announcements, reports, etc. on IDA website**
